

Notice of Allowability

Application No.

09/827,739

Examiner

Jason Proctor

Applicant(s)

SANDHAM, JOHN H.

Art Unit

2123

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to submission filed on 18 December 2006.
2. ☒ The allowed claim(s) is/are 16-21.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

**EXAMINER'S AMENDMENT AND
REASONS FOR ALLOWANCE**

Claims 1, 2, 4-10, 12, 14, and 15 were rejected in the office action of 18 September 2006.

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 18 December 2006 has been entered.

Applicants' submission filed on 18 December 2006 has cancelled claims 1, 2, 4-10, 12, 14 and 15 (all pending claims) and presented new claims 16-21.

Claims 16-21 are allowed.

Examiner's Amendment

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Ronald R. Demsher (42,478) on 31 January 2007.

The application has been amended as follows:

Claim 16, line 1, the phrase "to enable" is changed to -that enables-.

Claim 16, line 12, the phrase “A B L+S” is changed to $-A-B-L+S-$. That is, the formula is A minus B minus L plus S.

Claim 17, line 10, the phrase “realised” is changed to $-\text{resolved}-$.

Claim 18, line 2, the phrase “vice versa” is changed to $-\text{the program code is written for a little-endian architecture and the hardware has a big-endian architecture}-$.

Claim 19, line 3, the phrase “a processor;” is changed to $-\text{a processor of the second endian format};-$.

Claim 19, lines 10-11, the phrase “A B L+S” is changed to $-A-B-L+S-$. That is, the formula is A minus B minus L plus S.

Claim 20, line 8, the phrase “realised” is changed to $-\text{resolved}-$.

Claim 21, line 2, the phrase “vice versa” is changed to $-\text{the program code is written for a little-endian architecture and the hardware has a big-endian architecture}-$.

Reasons for Allowance

2. The following is an examiner’s statement of reasons for allowance:

The prior art of record does not reveal translating *input code instructions of program code having memory access address*, including *translating the plurality of input code instructions into output code instructions* [which include] *transformed address expressions according to the expression $A-B-L+S$* , and executing the output code instructions to fetch and store data in the memory using the transformed address expressions, *whereby the relative order of bytes within each word is reversed into the second endian format and the plurality of words*

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are addressed in a second relative order with respect to the given starting address which is a reverse of the first relative order.

A search of the prior art reveals additional hardware circuitry for reversing bytes within words [for example, FIG. 5, US Patent No. 5,828,884, cited on PTO-892 part of Paper No. 20041110], which clearly is different from the scope of the claimed invention by addressing the problem with hardware circuitry.

A search of the prior art reveals manipulating load and store instructions to convert byte addresses within words [for example, abstract, US Patent No. 5,398,328, cited on PTO-892 part of Paper No. 20051213], which differs from the claimed invention at least because this method does not result in addressing the plurality of words in a second relative order ... which is a reverse of the first relative order.

A search of the prior art reveals endian-independent representation of data requiring additional software interfaces [for example, US Patent No. 6,021,275, cited on PTO-892 part of Paper No. 20041110], which differs from the claimed invention at least because this method does not result in addressing the plurality of words in a second relative order ... which is a reverse of the first relative order.

A thorough search of the prior art fails to disclose or fairly suggest achieving an endian transformation method or emulation system implementing the same as claimed for the reasons set forth above.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue

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fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

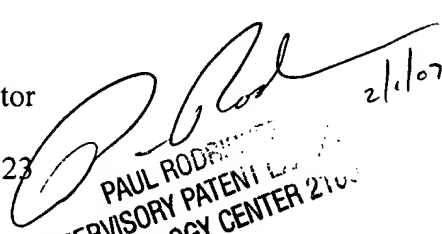
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason Proctor whose telephone number is (571) 272-3713. The examiner can normally be reached on 8:30 am-4:30 pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Rodriguez can be reached at (571) 272-3753. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 Group receptionist: 571-272-2100. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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